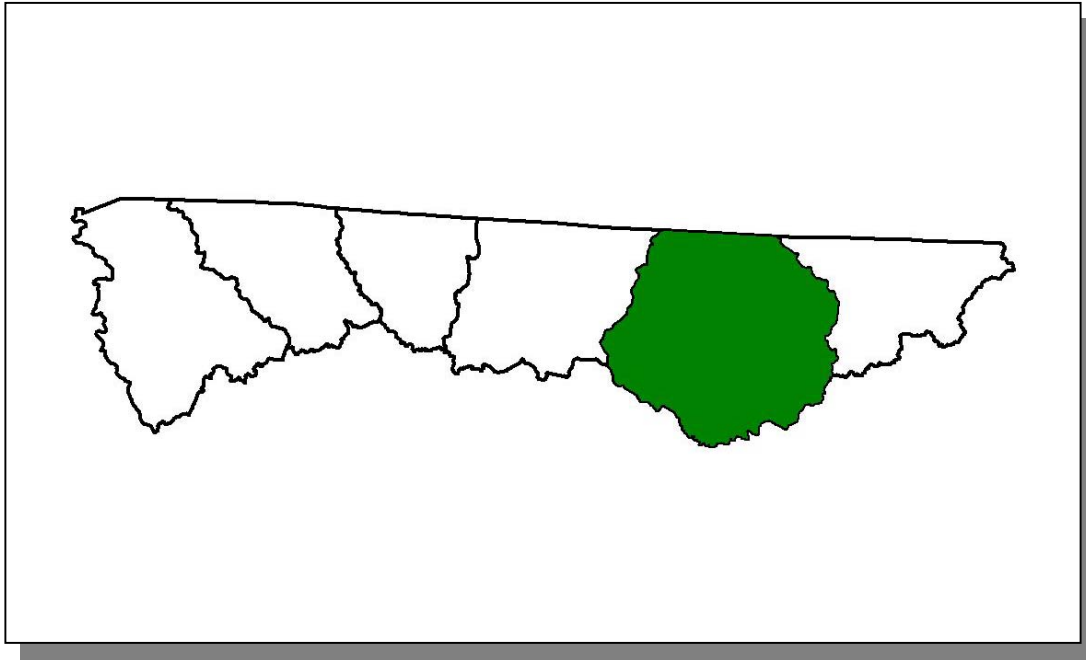
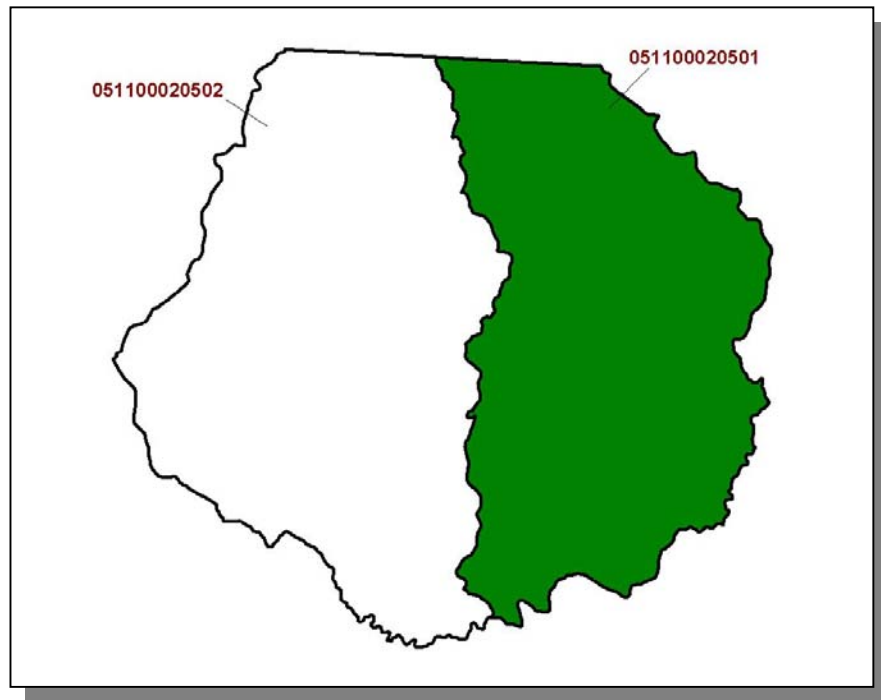


**4.2.C. 0511000205.**

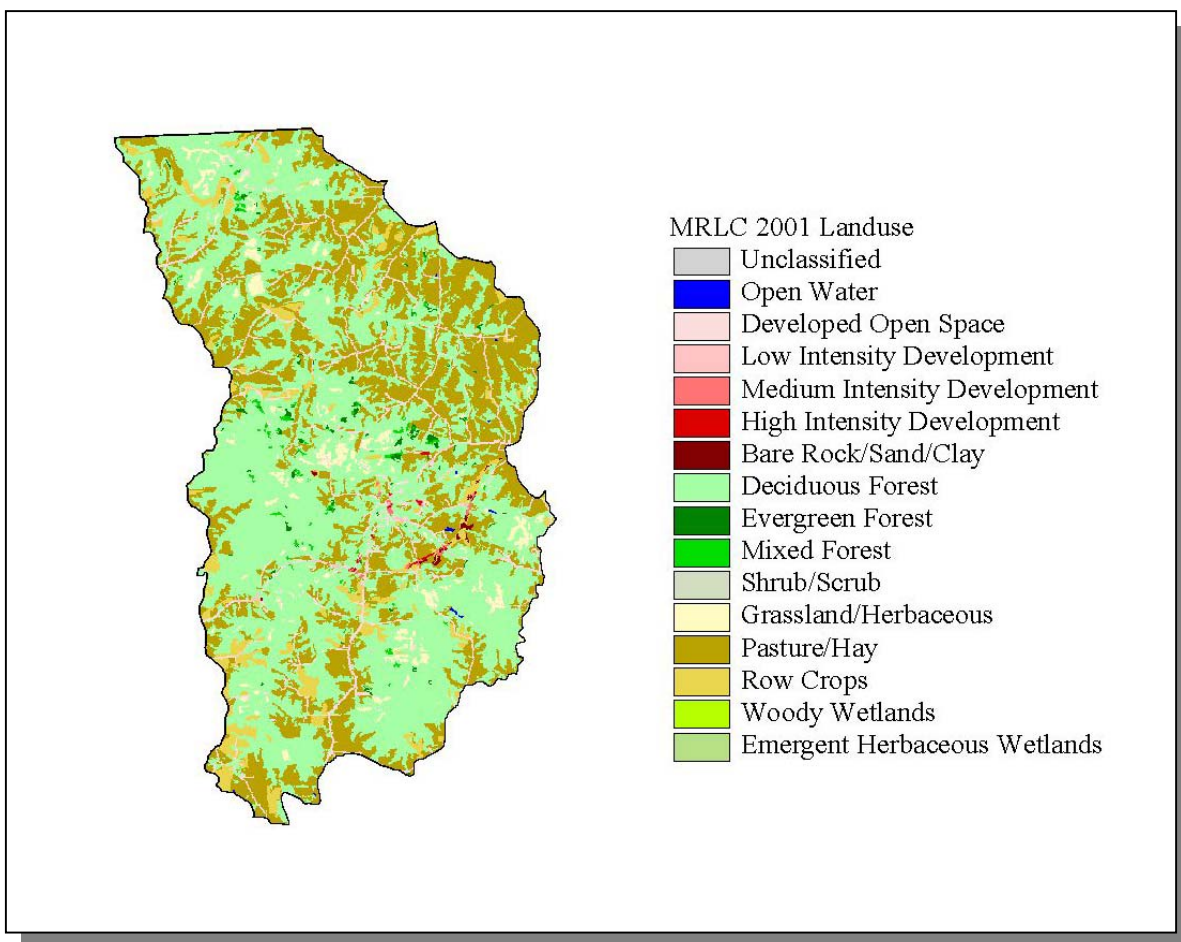


**Figure 4-57. Location of Subwatershed 0511000205.** All Barren River HUC-10 subwatershed boundaries are shown for reference.

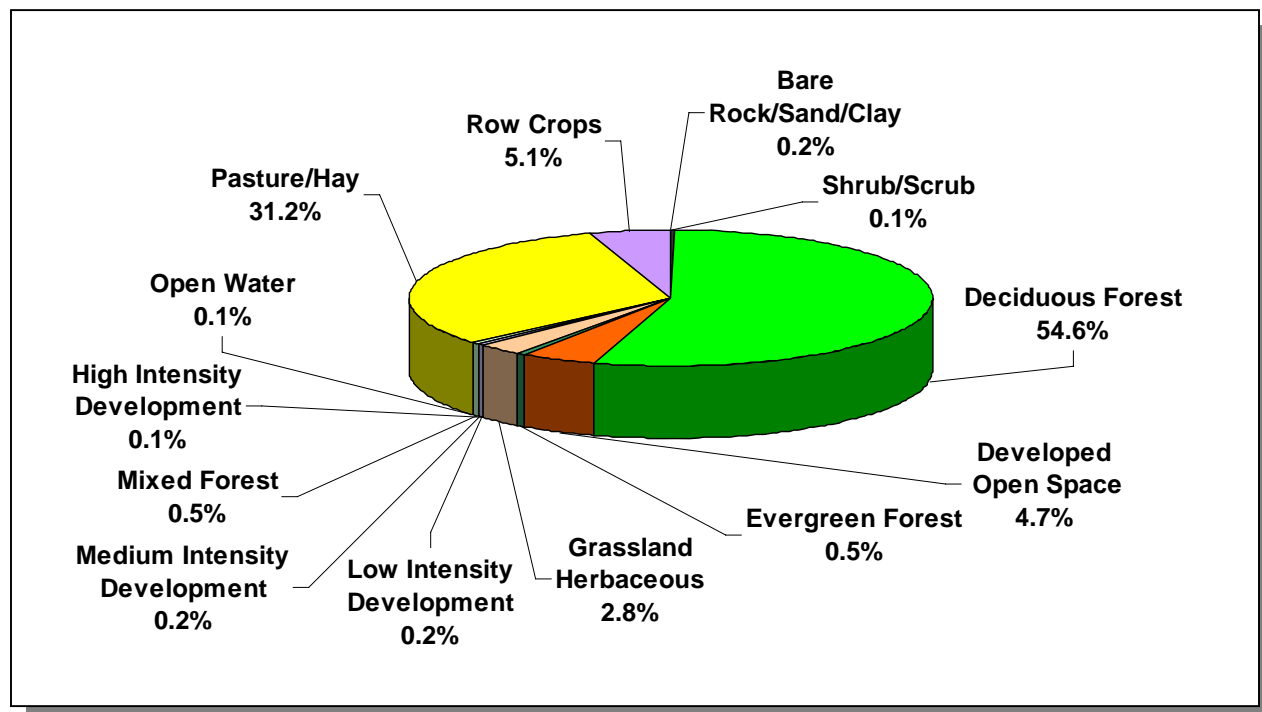
**4.2.C.i.** 051100020501 (Salt Lick Creek).



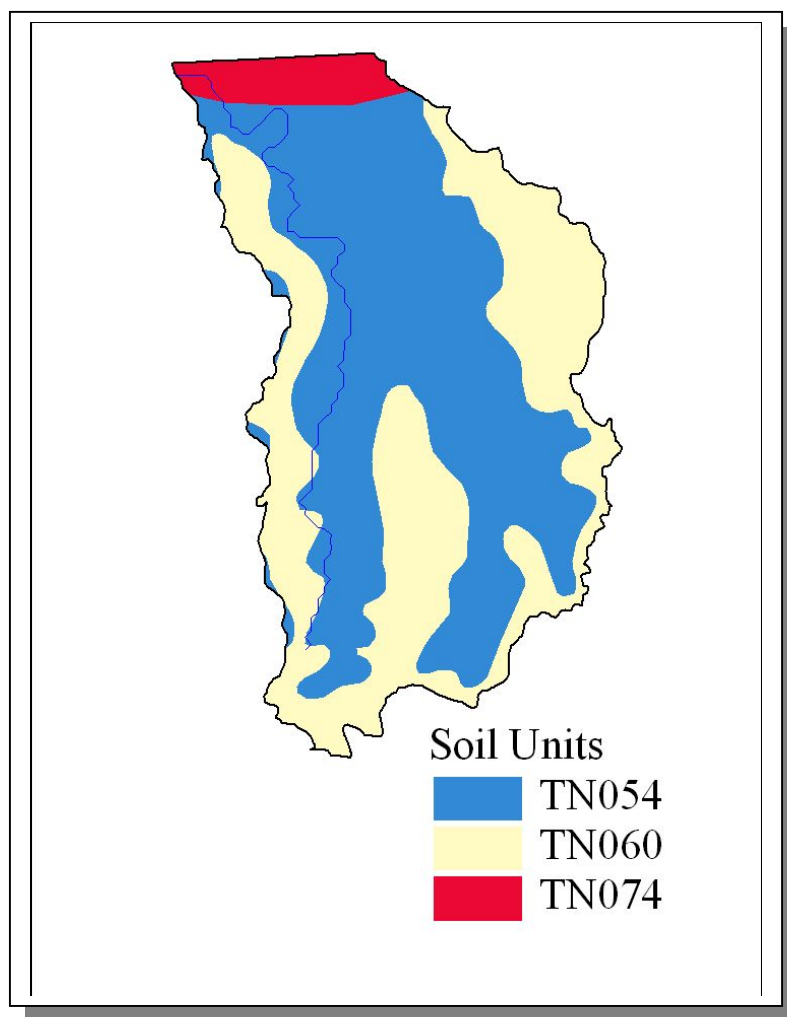
**Figure 4-58. Location of Subwatershed 051100020501.** All Barren River HUC-12 subwatershed boundaries are shown for reference.



**Figure 4-59. Illustration of Land Use Distribution in Subwatershed 051100020501.**



**Figure 4-60. Land Use Distribution in Subwatershed 051100020501.** More information is provided in Appendix IV.



**Figure 4-61. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051100020501.**

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN054	0.00	C	3.04	4.84	Loam	0.32
TN060	5.00	B	1.30	5.32	Silty Loam	0.39
TN074	7.00	B	1.44	4.94	Loam	0.33

**Table 4-52. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051100020501.** The definition of “Hydrologic Group” is provided in Appendix IV.

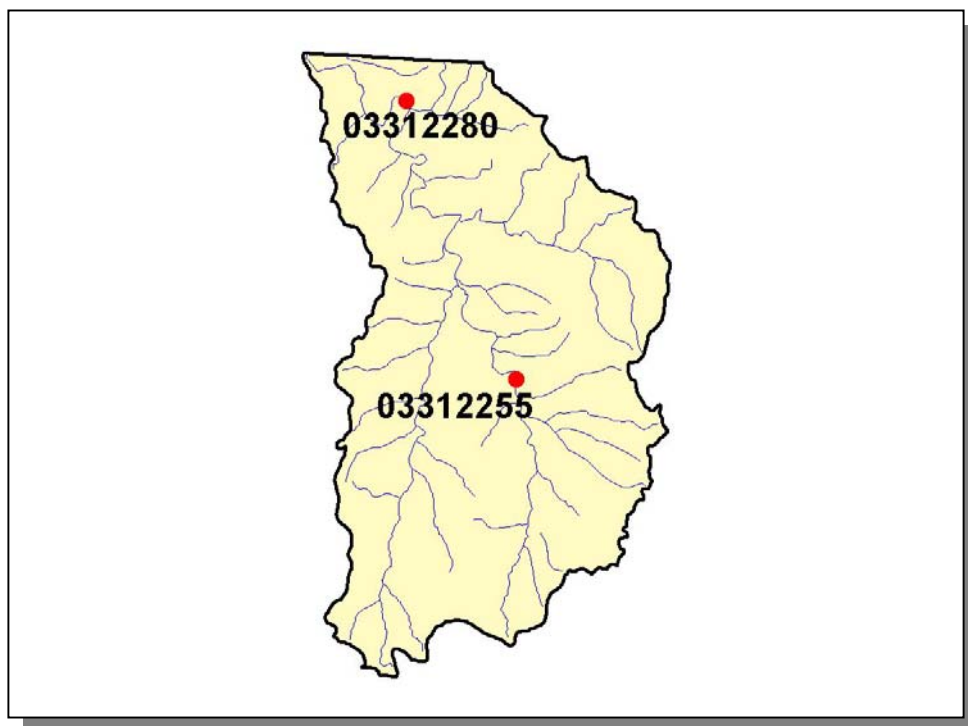
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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Macon	15,906	17,854	20,386	16.32	2,596	2,914	3,327	28.2

**Table 4-53. Population Estimates in Subwatershed 051100020501.**

			NUMBER OF HOUSING UNITS			
Populated Place	County	Population	Total	Public Sewer	Septic Tank	Other
Red Boiling Springs	Macon	905	420	37	376	7

**Table 4-54. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 051100020501.**

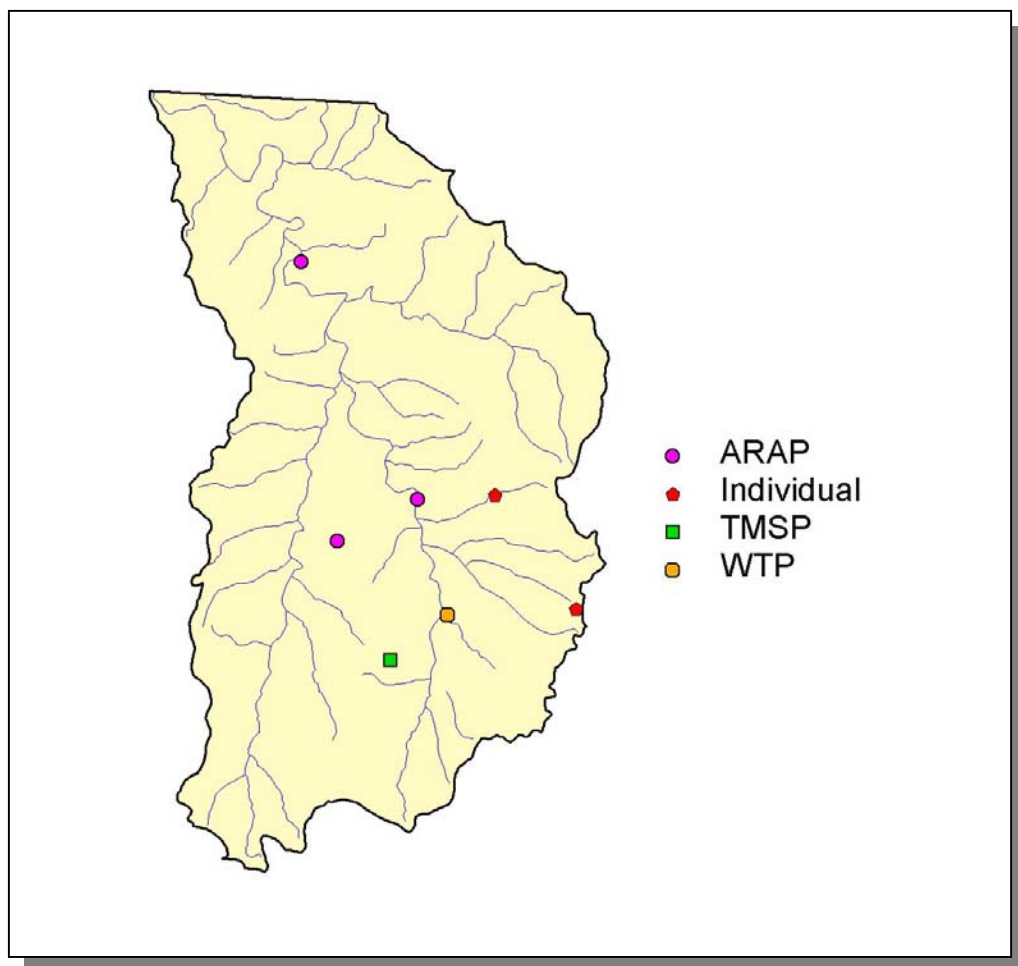


**Figure 4-62. Location of Historical Streamflow Data Collection Sites in Subwatershed 051100020501.** More information is provided in Appendix IV.



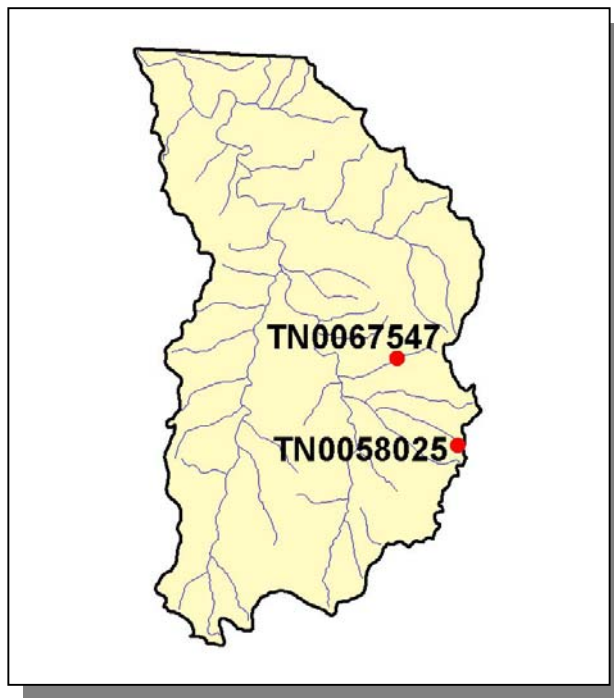
**Figure 4-63. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051100020501.** More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.

**4.2.C.i.a. Point Source Contributions.**

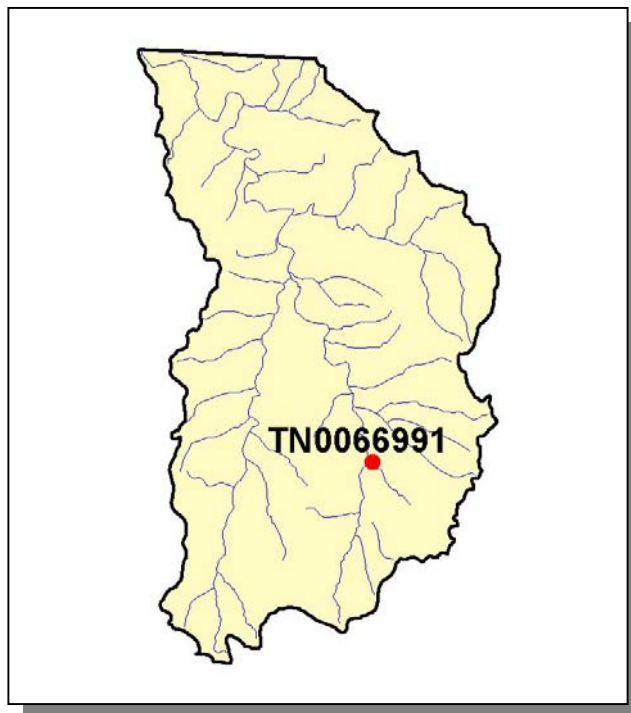


**Figure 4-64. Location of Permits Issued in Subwatershed 051100020501.** More information, including the names of facilities, is provided in Appendix IV.

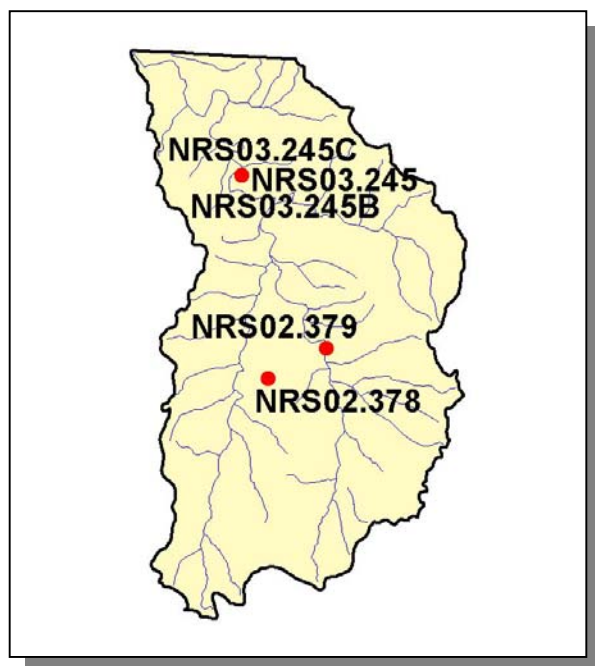




**Figure 4-65. Location of Active NPDES Sites in Subwatershed 051100020501.** More information, including the names of facilities, is provided in Appendix IV.



**Figure 4-66. Location of Water Treatment Plants in Subwatershed 051100020501.** More information, including the names of facilities, is provided in Appendix IV.



**Figure 4-67. Location of Aquatic Resource Alteration Permit (ARAP) Sites (Individual Permits) in Subwatershed 051100020501.** More information is provided in Appendix IV.



**Figure 4-68. Location of TMSF Sites in Subwatershed 051100020501.** More information, including the names of facilities, is provided in Appendix IV.

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**4.2.C.i.b. Nonpoint Source Contributions.**

LIVESTOCK COUNTS					
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
2,688	4,669	57	6	425	20

**Table 4-55. Summary of Livestock Count Estimates in Subwatershed 051100020501.** According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Clay	0	14,574	0	18	174	23
Macon	15,039	26,098	318	675	2,377	111

**Table 4-56. Summary of Livestock Count Estimates in Clay and Macon Counties.** According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

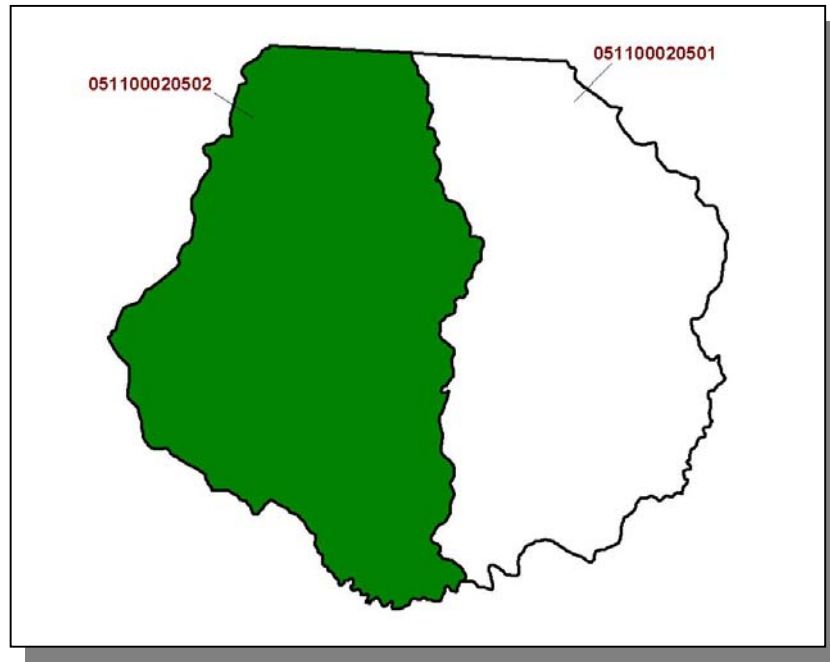
County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Clay	105.1	105.1	2.3	10.1
Macon				

**Table 4-57. Forest Acreage and Annual Removal Rates (1987-1994) in Clay and Macon Counties.**

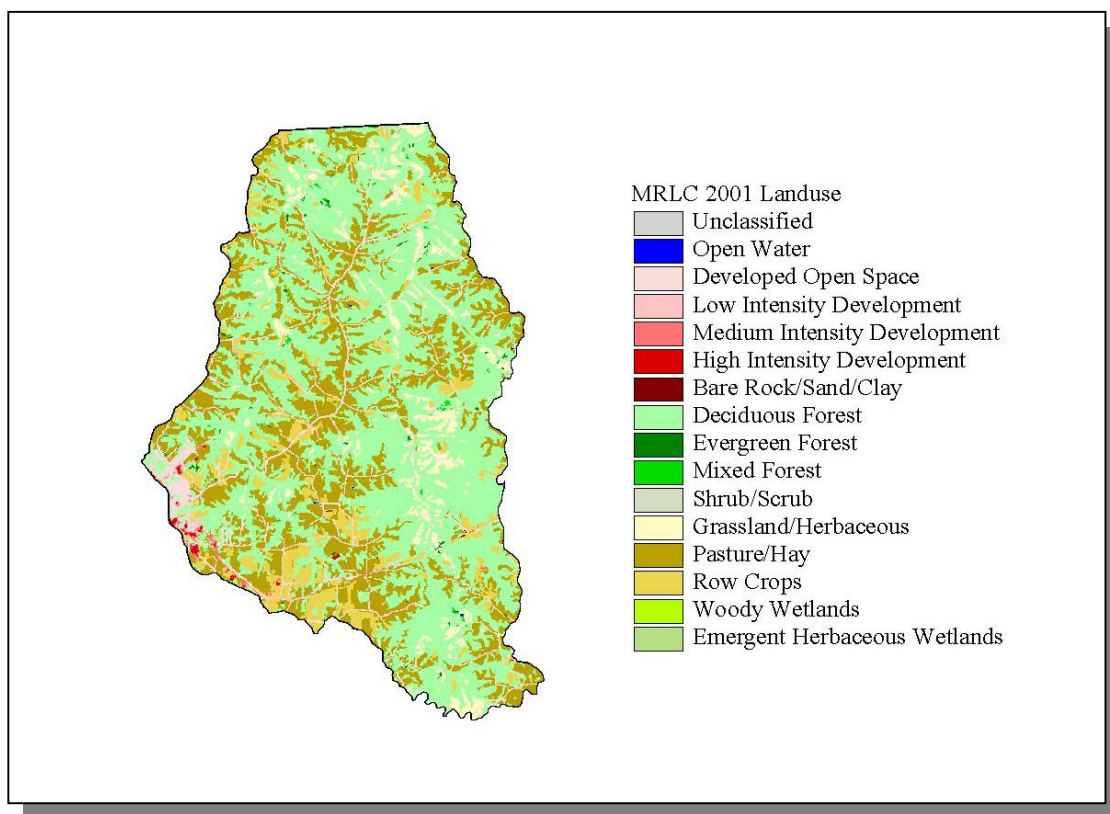
CROPS	TONS/ACRE/YEAR
Legumes (Pastureland)	0.07
Grass (Pastureland)	0.43
Grass (Hayland)	0.21
Legumes (Hayland)	0.13
Legumes, Grass (Hayland)	0.14
Grass, Forbs, Legumes (Mixed Pasture)	1.04
Corn (Row Crops)	3.99
Tobacco (Row Crops)	11.12
Wheat (Close-Grown Cropland)	3.43
Other Vegetable and Truck Crops	5.48
Conservation Reserve Program Lands	0.28
Farmsteads and Ranch Headquarters	0.16

**Table 4-58. Annual Estimated Total Soil Loss in Subwatershed 0604000401.**

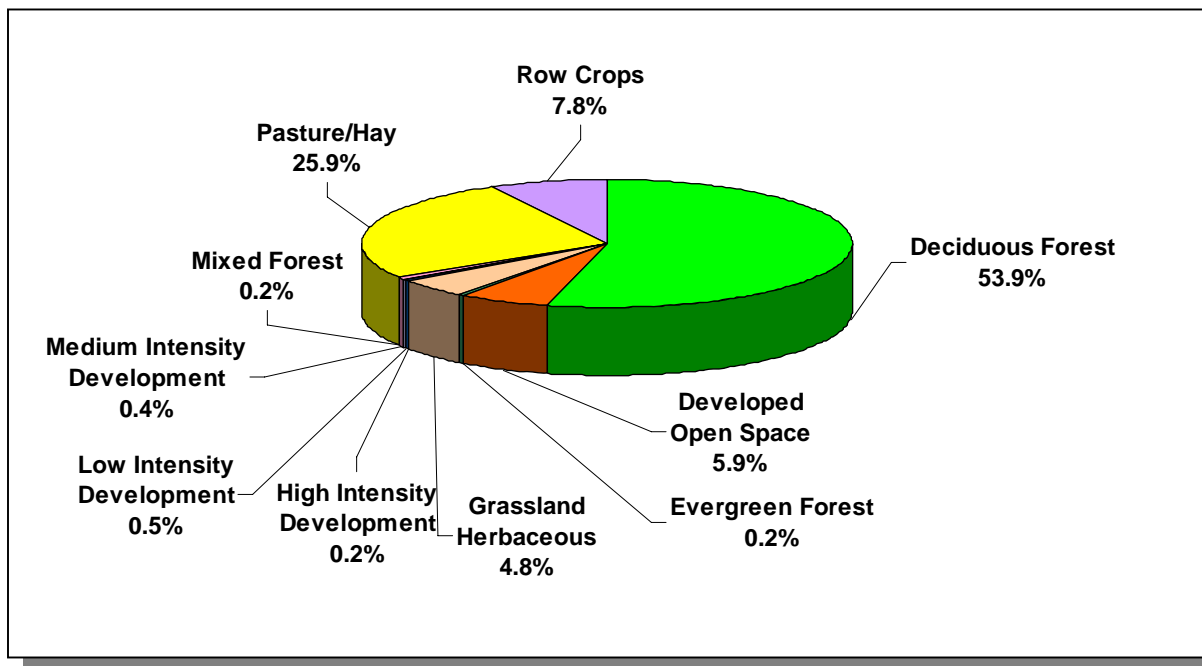
**4.2.C.ii.** 051100020502 (Long Fork).



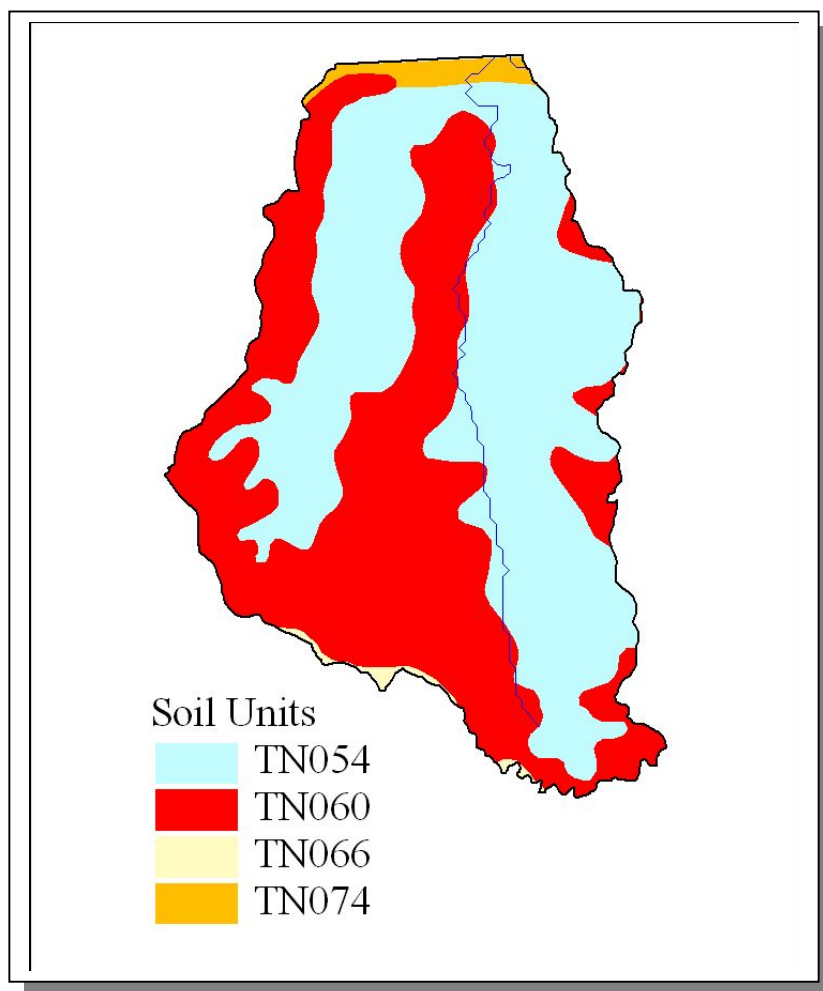
**Figure 4-69. Location of Subwatershed 051100020502.** All Barren River HUC-12 subwatershed boundaries are shown for reference.



**Figure 4-70. Illustration of Land Use Distribution in Subwatershed 051100020502.**



**Figure 4-71. Land Use Distribution in Subwatershed 051100020502.** More information is provided in Appendix IV.



**Figure 4-72. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051100020502.**

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN054	0.00	C	3.04	4.84	Loam	0.32
TN060	5.00	B	1.30	5.32	Silty Loam	0.39
TN066	0.00	B	2.62	4.75	Loam	0.28
TN074	7.00	B	1.44	4.94	Loam	0.33

**Table 4-59. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051100020502.** The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Macon	15,906	17,854	20,386	19.02	3,025	3,396	3,877	28.2

**Table 4-60. Population Estimates in Subwatershed 051100020502.**

Populated Place	County	Population	NUMBER OF HOUSING UNITS			
			Total	Public Sewer	Septic Tank	Other
Lafayette	Macon	3,641	1,695	1,323	348	24

**Table 4-61. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 051100020502.**

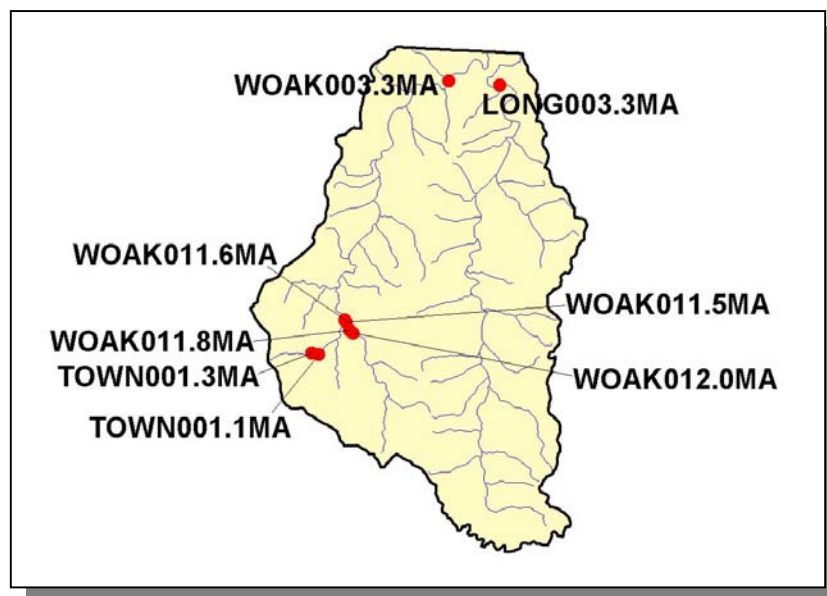
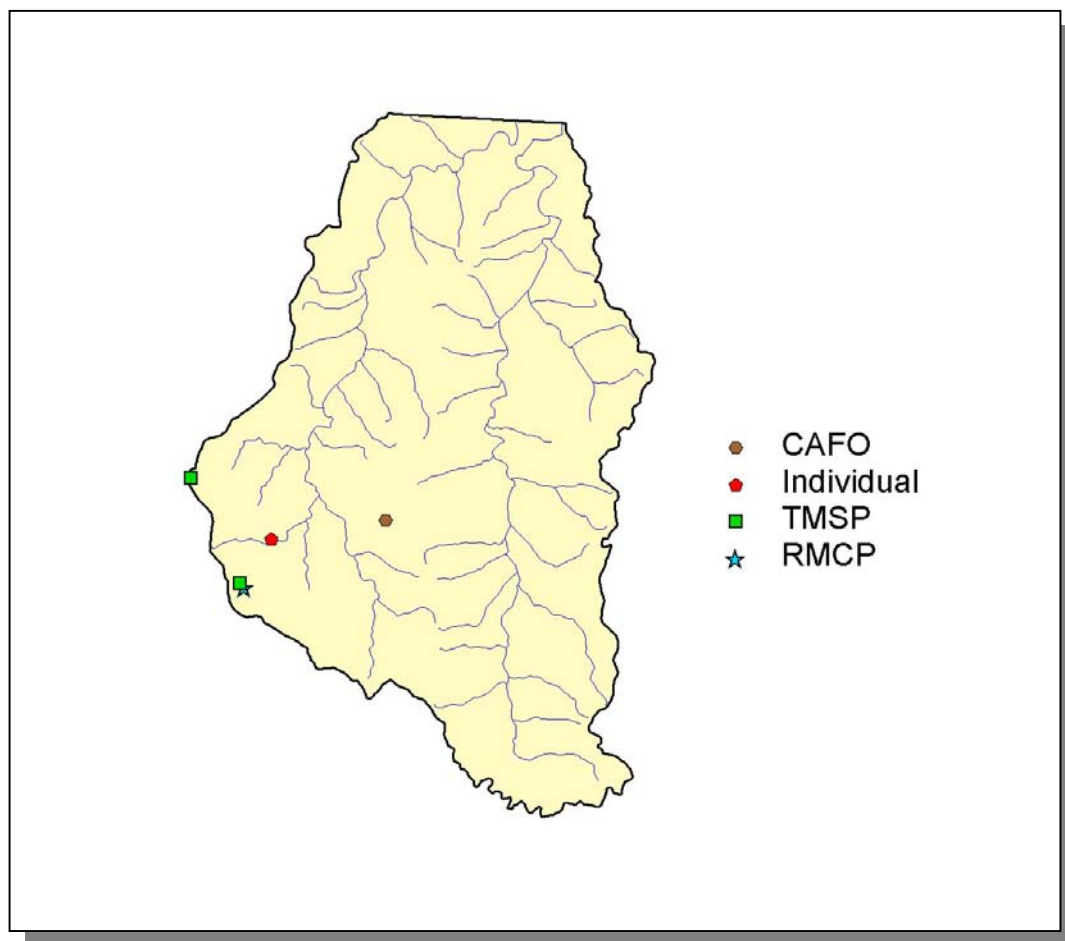


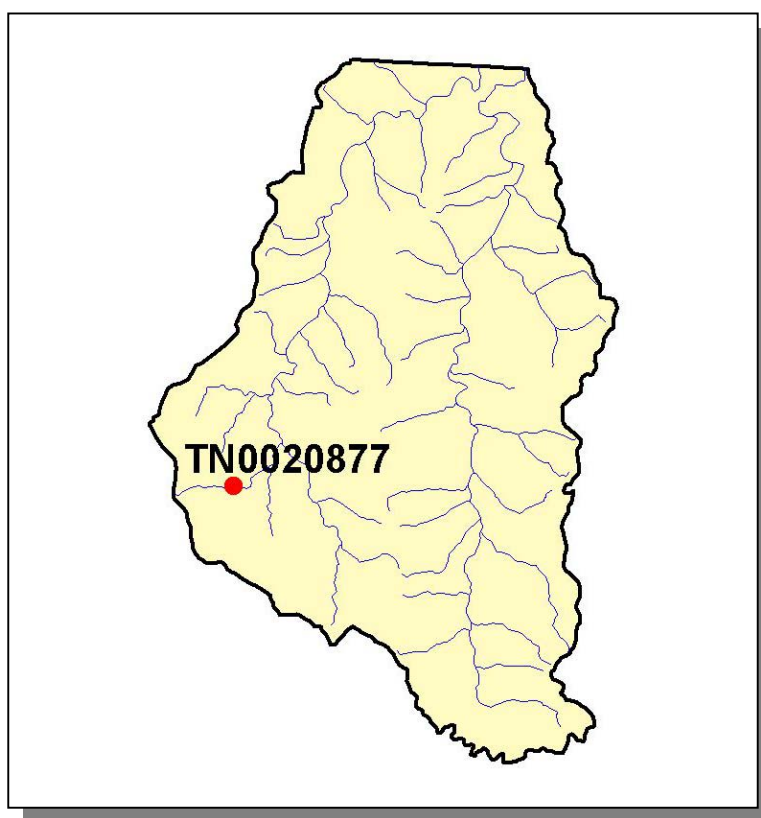
Figure 4-73. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051100020502. More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.



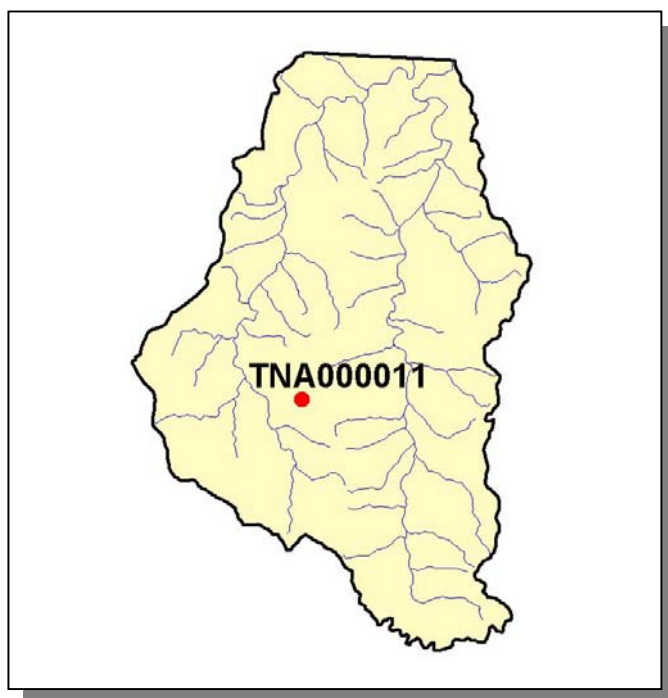
**4.2.C.ii.a. Point Source Contributions.**



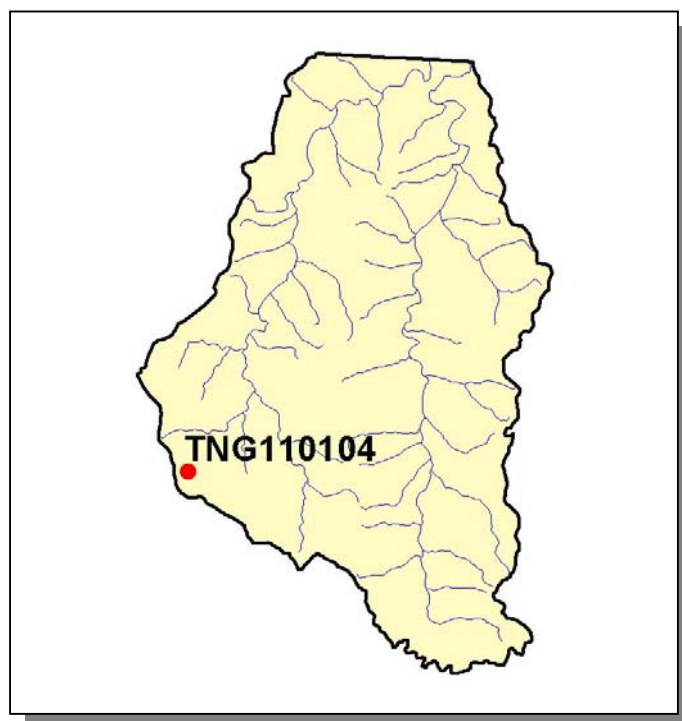
**Figure 4-74. Location of Permits Issued in Subwatershed 051100020502.** More information, including the names of facilities, is provided in Appendix IV.



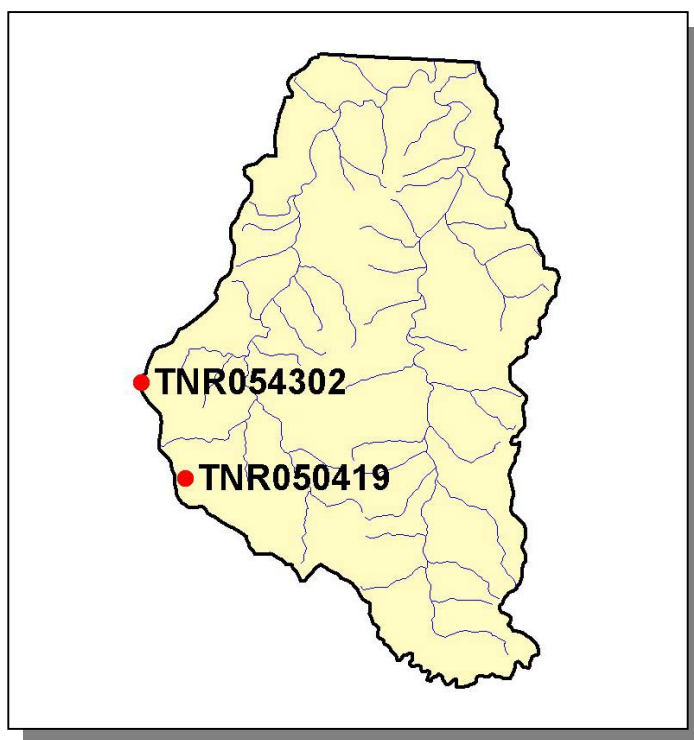
**Figure 4-75. Location of Active NPDES Sites in Subwatershed 051100020502.** More information, including the names of facilities, is provided in Appendix IV.



**Figure 4-76. Location of Concentrated Animal Feeding Operations (CAFO) in Subwatershed 051100020502.** More information, including the names of facilities, is provided in Appendix IV



**Figure 4-77. Location of Ready Mix Concrete Plants (RMCP) in Subwatershed 051100020502.** More information is provided in Appendix IV.

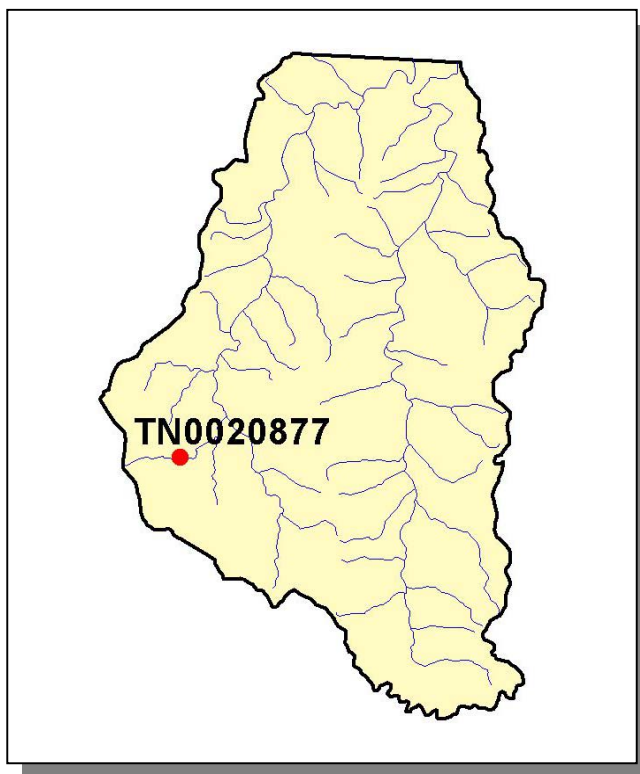


**Figure 4-78. Location of TMSP Sites in Subwatershed 051100020502.** More information, including the names of facilities, is provided in Appendix IV.

**4.2.C.ii.a.i.** Dischargers to Water Bodies Listed on the 2004 303(d) List

There is one NPDES facility discharging to water bodies listed on the 2004 303(d) list in Subwatershed 051100020502:

- TN0020877 (Lafayette STP) discharges to Town Creek @ RM 1.3



**Figure 4-79. Location of NPDES Dischargers to Water Bodies Listed on the 2004 303(d) List in Subwatershed 051100020502.** More information, including the names of facilities, is provided in Appendix IV.

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PERMIT #	1Q10	3Q10	7Q10	3Q20	QDESIGN
TN0020877			0.38		

**Table 4-62. Receiving Stream Flow Information for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051100020502.** Data are in million gallons per day (MGD). Data were obtained from the USGS publication Flow Duration and Low Flows of Tennessee Streams Through 1992 or from permit files.

PERMIT #	NH <sub>3</sub>	P	Zn	Cu	Pb	Ni	Cd	Hg	Mo	As	Se
TN0020877	X	X	X	X	X	X	X	X	X	X	X

**Table 4-63. Monitoring Requirements for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051100020502.**

PERMIT #	CBOD <sub>5</sub>	E.coli	FECAL COLIFORM	NH <sub>3</sub>	TSS	SETTLEABLE SOLIDS	DO	pH
TN0020877	X	X	X	X	X	X	X	X

**Table 4-64. Parameters Monitored for Daily Maximum Limits for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051100020502.** WET, Whole Effluent Toxicity; CBOD<sub>5</sub>, Carbonaceous Biochemical Oxygen Demand (5-Day); TSS, Total Suspended Solids.

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**4.2.C.ii.b. Nonpoint Source Contributions.**

LIVESTOCK COUNTS					
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
3,241	5,624	69	8	512	24

**Table 4-65. Summary of Livestock Count Estimates in Subwatershed 051100020502.** According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Macon	15,039	26,098	318	675	2,377	111

**Table 4-66. Summary of Livestock Count Estimates in Macon County.** According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Macon				

**Table 4-67. Forest Acreage and Annual Removal Rates (1987-1994) in Macon County.**

CROPS	TONS/ACRE/YEAR
Legumes (Pastureland)	0.07
Grass (Pastureland)	0.43
Grass (Hayland)	0.21
Legumes (Hayland)	0.13
Legumes, Grass (Hayland)	0.14
Grass, Forbs, Legumes (Mixed Pasture)	1.03
Corn (Row Crops)	3.99
Tobacco (Row Crops)	11.12
Wheat (Close-Grown Cropland)	3.43
Other Vegetable and Truck Crop	5.48
Conservation Reserve Program Lands	0.28
Farmsteads and Ranch Headquarters	0.16

**Table 4-68. Annual Estimated Total Soil Loss in Subwatershed 051100020502.**